TRANSMITTAL OF (U	Docket No. LWEP:119US							
In Re Application: Ralf KRUEGER OFFEB 0 5: 2004								
Serial No.	Filing Dates	Examiner	Group Art Unit					
10/605,492	10/02/2003 FNT & TRAD	N/A	2872					
PHASE SHIFT MI	ETHOD AND APPARATUS FOR	IMPLEMENTING PHASE-S	HIFT CONSTRAST					
OR MODULATIO	N-CONTRAST OBSERVATION	ON MICROSCOPES						
		······································						
	•	nent of Fee cts to pay the fee set forth in 37 CF	FR 1 17(n))					
□ A check in the amount of is attached.  ☑ The Director is hereby authorized to charge and credit Deposit Account No. 50-0822  as described below. □ Charge the amount of □ Credit any overpayment. ☑ Charge any additional fee required.  Certificate of Transmission by Facsimile*  ☐ Certificate of Mailing by First Class Mail  ☐ I certify that this document and authorization to charge deposit account is being facsimile transmitted to the United States Patent and Trademark Office (F:  ☐ I certify that this document and fee is being deposited on February 3, 2004 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.  ☐ Signature  ☐ Signature  ☐ C. Paul Maliszewski								
Typed or Printed N	ame of Person Signing Certificate	Typed or Printed Name of	Person Mailing Certificate					
e. lel		Dated: February 3, 2004						

TRANSMITTAL	Docket No. LWEP:119US							
In Re Application OFEB 0 5 2004 E								
Serial No. 1978 19.	Filing Date 10/02/2003	Group Art Unit 2872						
Title: PHASE SHIFT METHOD AND APPARATUS FOR IMPLEMENTING PHASE-SHIFT CONSTRAST OR MODULATION-CONTRAST OBSERVATION ON MICROSCOPES								
Address to:  Commissioner for Patents P.O. Box 1450  Alexandria, VA 22313-1450								
	37 C	FR 1.97(b)						
1. The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.								
	37 CFR 1.97(c)							
2. The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:								
☐ the state	☐ the statement specified in 37 CFR 1.97(e);							
	OR							
☐ the fee s	set forth in 37 CFR 1.17(p).							
,								

			Docket Number (Optional) 294.LWEP:1		Application Number 10/605,492				
<b>*</b>	INFO	RMATION DISCLOSUR			Applicant(s) Ralf KRUEGER				
O CO				Filing Date 10/02/200		roup Art Unit	2872	-	
	+	FEB 0 5 2004 🗒		U.S. PAT	ENT DOCUMENTS				
*EXAMINER INITIAL	REF	DOCUMENT UMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE  IF APPROPRIATE	
INTERE		& TRADE						IF APPR	OPRIATE
								377	
					-				
								Tr	
					· . · · · · · · · · · · · · · · · · · ·				
									-
				FOREIG	N PATENT DOCUMENTS	8		77	
	REF	DOCUMENT NUMBER	DATE		COUNTRY	CLASS	SUBCLASS	YES	NO_
		EP 0069263 A1	01/12/1982	European Patent Office				<b>y</b>	
		DE 2523463 A1	12/18/1975	Germany				>	
		DE 2523464 A1	03/18/1976	German	ny				1
					<del>,</del>				
				OTHER	DOCUMENTS A	A of With B	D ( )	E4.	
<u> </u>				OTHER	DOCUMENTS (Includin	ng Author, Title, D	ate, Pertinent Pa	ges, Etc.) 	
					- <u>-</u>				
EXAMINER			DATE CONSIDERED						
		al if citation considered, whethe clude copy of this form with nex			ice with MPEP Section 609	; Draw line throu	gn citation if not	in conform	iance and



## U.S. UTILITY PATENT APPLICATION ATTORNEY DOCKET NO. 294.LWEP:119US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Matter of United States Patent Application:

Applicant(s): Ralf KRUEGER

Examiner:

N/A

Application No.:

10/605,492

Art Unit:

2872

Filed:

10/02/2003

For: PHASE SHIFT METHOD AND APPARATUS FOR

IMPLEMENTING PHASE-CONTRAST OR MODULATION-CONTRAST

**OBSERVATION ON MICROSCOPES** 

Certificate of Mailing by First Class Mail

I certify that this Information Disclosure Statement is being deposited on Feb. 3, 2004 with the U.S. Postal Service as first class mail under 37 C.F.R. §1.8 and is addressed to the Commissioner for Patents, PO Box 1450, Alexandria, VA

22313-145

C. Paul Maliszewski Regis. No. 51,990

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Honorable Sir:

This Information Disclosure Statement is submitted in compliance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98.

Record is attached of published art for consideration during prosecution of the aboveidentified patent application. No representation is made or intended that a search has been made or, if made, was complete, or that no more pertinent art than that listed is available. It is expected that the Patent and Trademark Office will conduct an independent search for relevant prior art.

Unless otherwise indicated, or unless references cited are U.S. patents or patent application publications, a full text copy of the entire reference of published art is attached. Where specifically indicated, an equivalent English language patent or publication is attached in lieu of the translation.

Also, according to 1.98(a)(3)(i), a concise explanation is listed below, as it is presently understood, of each foreign patent document not in the English language.

## Please consider the following published art:

•

German Patent No. DE2523464 (Hoffman) 03/18/1976 is cited. According to the invention there is provided an optical system particularly adapted for use in microscopy and useful for viewing phase objects with the aid of a light beam, comprising: (a) means including an objective and a condenser lens in an optical path for focusing said light beam at a predetermined plane in said optical path, said object located between said objective and condenser lenses in said optical path, with said predetermined plane manifesting a Fourier transform plane whereby the spatial frequencies of said object as well as the maximum energy for each point on said object's gradient are distributed, (b) means having a first specific density region and at least a second immediately adjacent region of a substantially different intensity whereby there is an abrupt change in density between said adjacent regions, located at said predetermined plane causing modifications by said means of the amplitude of said light beam relatively about said first region in both a greater and lesser intensity, and (c) an illumination source positioned in a plane

conjugate to said predetermined plane for illuminating said object, said illumination source

comprising a lamp assembly of the type having a relatively planar filament arrangement to

provide an illumination pat tern capable of being registered at said first region of said means,

The invention overcomes the limitations of the phase contrast microscope and the

interference microscope. Objects are rendered visible in a simpler manner, utilizing less

To accomplish this, the invention, an apparatus for examining expensive components.

microscopic transparent objects, consists of a compound microscope wherein the object is

illuminated with a controlled beam of light. Further means are included for selectively

modulating the amplitude of portions of this beam after it has passed through the object. The

beams subsequently combine to interfere in the image whereon phase gradients in the object are

rendered visible.

'n

In accordance with the Patent and Trademark Office Notice of August 15, 1980, also

enclosed is a completed Form PTO-A820 (Form PTO-1449).

Respectfully submitted,

C. Paul Maliszewski

Registration No. 51,990

Agent for Applicant

Simpson & Simpson, PLLC

5555 Main Street

Williamsville, NY 14221-5406

Telephone No. 716-626-1564

Dated: February 3, 2004

**CPM** 

Enclosures (3)

3